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Our File 15807
International Patent Application No. PCT/CH2002/000545;
Delta Energy Systems (Switzerland) AG
Response to the Written Opinion of 12 July 2004

Dear Sirs,

1 New claims 1-15

In response to the Written Opinion of 12 July 2004 and your confirmation of the extension of the time limit of 12 November 2004 with respect to the international patent application in caption please find enclosed new claims 1-15 (replacement sheets 13-15). The international preliminary examination report shall be established on the basis of these new claims.

In the claims, the following amendments have been made:

- In claim 1, the term "and at least one coil" is replaced by the term "and at least two coils". This amendment is based for example on figure 5 and the description on page 13, lines 17-20.
- In claim 1, the term "thereby dividing the surface into at least one coil area (15, 15.1)" has been replaced by the term "thereby providing at least one coil area (15, 15.1) on the surface of the coil body". This amendment is based on the description on page 5, line 14.
- The feature that "the separating plate forms a winding of one of the at least two coils" from claim 8 has been inserted into claim 1 as feature e). Accordingly, claim 8 has been deleted, claims 9-16 have been renumbered and the claim dependencies have been adapted.

- The feature "the coil portion includes a recess (8) for positioning of the separating plate" from claim 3 has been inserted into feature c) from claim 1. Accordingly, this feature has been deleted from claim 3.
- This new feature c) in claim 1 has further been specified by inserting the terms "on its outer surface" and "and holding". These amendments are based on the description on page 4, lines 1-3.
- In claim 1, the feature "and in that another coil of said at least two coils includes an insulated wire wound around the coil body in said at least one coil area, the separating plate being a side support for said wire and dissipating heat generated within the wire" has been inserted as feature f). This amendment is based on the following sentences in the description: page 5, lines 12-14, page 3, lines 19-21 and page 3, lines 16-18.

The remaining claims are not amended.

2 Patentability

2.1 Novelty

The new claim 1 now claims a coil form for forming an inductive element with a core and at least two coils. The claimed (at least one) separating plate is made of metal and forms a winding of one of the coils and an insulated wire wound around the coil body forms another coil. The claim further includes the limitation that the coil body is made of plastic and includes at least one recess on its outer surface for positioning and holding the separating plate.

None of the cited references shows all of these features in combination. Claim 1 and therewith all depending claims 2-11 are therefore new.

2.2 Inventive step

The new claim 1 includes several features that are not known from the cited references. It is for example not known from the cited references that the separating plate forms a winding of a coil or that the coil body includes a recess on its outer surface for positioning and holding the separating plate. It therefore can not be obvious for a person skilled in the art to incorporate these features into a coil form.

Hence, claim 1 and therewith all depending claims 2-11 involve an inventive step.

Since all claims 1-11 are new and involve an inventive step, they are patentable.

3 Clarity

The unclear term "... thereby dividing the surface into at least one coil area ..." has been amended to read as "... thereby providing at least one coil area on the surface ...". Accordingly, the new wording of claim 1 is clear.

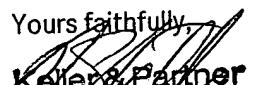
Regarding the examiner's unclarity objection with respect to original claim 12 (new claim 11), it is to note that the applicant is of the opinion that the term "the core ... has the shape of two rectangular portions with a common edge" is rather clear. It was the intention to use a term that covers all double E shape core types, independent of the number of core parts used to assemble

the core and independent of the shape of these core parts. The current wording includes all double E shaped cores whether they are assembled from two E shaped parts, from an E shaped and an I shaped part, from two L shaped and an I shaped part, from an L shaped and an F shaped part or any other combination of differently shaped parts. If the term "double E core" or the term "EI core" had been used as proposed by the examiner, it would be possible to interpret the claim such that a core with two L shaped and an I shaped part or a core with an L shaped and an F shaped part etc. would not be covered by the claim.

4 Examination report

As the new set of claims overcomes all of the objections of the Written Opinion regarding the patentability of claims 1-11, a positive international preliminary examination report with respect to the patentability of these claims can be expected.

In the case the examiner requires further clarifications or does not agree with the above comments he is kindly requested to call back.

Yours faithfully,

Kellers Partner
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Roman Stäbler

- replacement sheets 13-15
- form of acknowledgement of receipt

Ansprüche 1 – 15

1. A coil form (1, 1.1) for forming an inductive element with a core (11.1, 11.2) and at least two coils, including
 - a) a hollow coil body (2) for insertion of the core, the coil body having an outer surface 5 for holding the at least one coil (16) and
 - b) at least one separating plate (3, 3.1) which surrounds the outer surface of the coil body thereby providing at least one coil area (15, 15.1) on the surface of the coil body,
characterised in that
 - c) the coil body is made of plastic and includes at least one recess on its outer surface 10 for positioning and holding the at least one separating plate,
 - d) the separating plate is made of metal, having an opening (4) for pushing the separating plate over the coil body and having a slit (5) for prohibiting leakage currents within the separating plate,
 - e) the separating plate forms a winding of one of the at least two coils
 - f) and in that another coil of said at least two coils includes an insulated wire wound 15 around the coil body in said at least one coil area, the separating plate being a side support for said wire and dissipating heat generated within the wire.
2. A coil form according to claim 1, characterised in that the coil body includes a coil portion (6) of a kind of a hollow cylinder for slipping over the separating plate and a flange portion (7) on an end region of the coil portion. 20
3. A coil form according to claim 2, characterised in that the flange portion includes a plurality of terminals (9) where at least one terminal is electrically conductively connectable to an end of one of the at least two coils.
- 25 4. A coil form according to any of claims 1 to 3, characterised in that a shape of the opening (4) of the separating plate substantially corresponds to a shape of the outer surface of the coil body and in that an internal diameter of the separating plate is smaller than an outer diameter of the coil body.

5. A coil form according to any of claims 1 to 4, characterised in that the coil body comprises at least two elements (20.1, 20.2) with means (21, 22) to fit the elements together to form the coil body.
6. A coil form according to claim 5, characterised in that the coil body comprises a first 5 and a second element (20.1, 20.2) and in that the means to fit the elements together include a recess (21) on the first element and a corresponding projection (22) on the second element.
7. A coil form according to any of claims 5 to 6, characterised in that the coil portion is of 10 a kind of a right cylinder, where the coil body is separated into two elements by a plane being perpendicular to a base plane of the right cylindrical coil portion.
8. An inductive element with a coil form according to any of claims 1 to 7, a core (11.1, 11.2) inserted into the hollow coil body and at least one coil, provided on the outer surface of the coil body.
9. An inductive element according to claim 8, characterised in that it includes a plurality of 15 separating plates (3, 3.1), where preferably an isolation plate (19) is provided between two adjacent separating plates.
10. An inductive element according to any of claims 8 to 9, characterised in that at least one winding of the at least one coil is formed by the separating plate.
11. An inductive element according to any of claims 8 to 10, characterised in that the core 20 (11.1, 11.2) of the inductive element has a shape of two rectangular portions with a common edge (13), where the common edge is inserted into the hollow coil body and whereby the core preferably includes two E-shaped parts (11.1, 11.2).
12. A coil form having a hollow coil body for insertion of a core of an inductive element and having an outer surface for holding a coil of the inductive element, characterised in that



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the coil body includes at least two elements (20.1, 20.2) with means (21, 22) to fit the elements together to form the coil body.

13. A coil form according to claim 12, characterised in that the coil body includes a first and a second element (20.1, 20.2) and in that the means to fit the elements together include a recess (21) on the first element and a corresponding projection (22) on the second element.
5
14. A coil form according to any of claims 12 to 13, characterised in that the coil body includes a flange portion (7) and a coil portion (6) which is of a kind of a right cylinder, where the coil body (2) is separated into two elements (20.1, 20.2) by a plane being perpendicular to a base plane of the right cylindrical coil portion.
10
15. A coil form according to any of claims 12 to 14, characterised in that it includes an additional hollow outer coil body for insertion of the coil body and for pushing over the separating plate.